

(2) a diffusion region within the microfabricated conduit which extends across the entire cross-section of the conduit,

(3) the microfabricated conduit having at least one inlet for introducing liquid into the microfabricated conduit and for introducing into the diffusion region a mixture comprising a test compound and a receptor or a test compound, a receptor and a ligand, and

(4) an outlet for exiting liquid from the microfabricated conduit, such that in use the ability of the test compound to prevent the binding of the ligand, if present, to the receptor, or the ability of the test compound to bind the receptor, is determined by reference to the diffusion of the test compound, the receptor or the ligand out of the diffusion region.

C1
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C2
3 8. (Twice amended) A method for determining in a microfabricated device having a microfabricated conduit the ability of a test compound to either interfere with the binding of a ligand to a receptor or to bind with a receptor, which method comprises:

(1) introducing liquid into the microfabricated conduit,

(2) introducing a mixture comprising a test compound and a receptor or a test compound, a receptor and a ligand into a diffusion region of the microfabricated conduit, the diffusion region extending across the entire cross-section of the conduit, and

(3) detecting the diffusion of the test compound, or the ligand, out of the diffusion region.

4. (Amended) A method as claimed in claim ³ wherein diffusion of the test compound or the ligand is detected on either side of the diffusion region.

Please add the following new claim.

5. (New) A device as claimed in claim ² wherein diffusion out of the diffusion region occurs substantially parallel to the liquid flow.